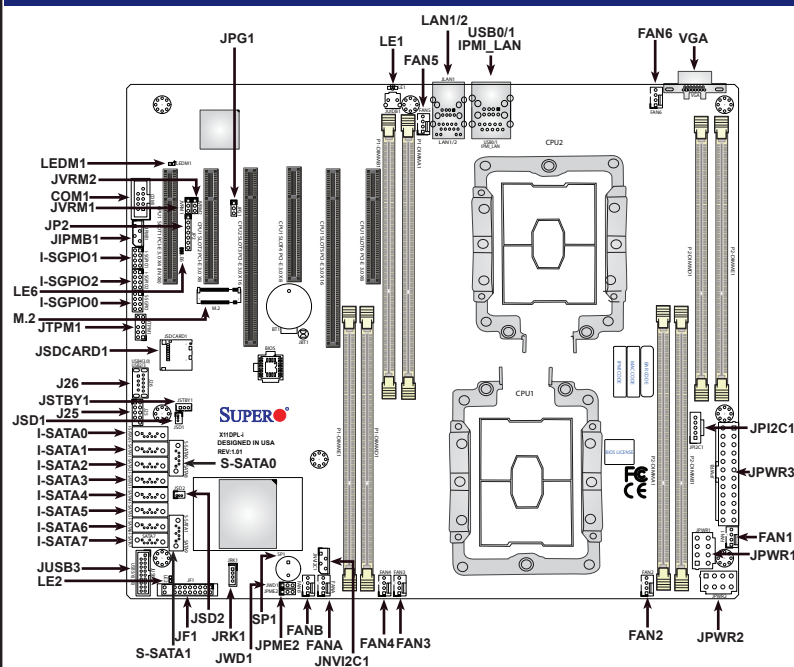


# SUPERMICRO® SuperServer 6019P-MT/MTR Quick Reference Guide

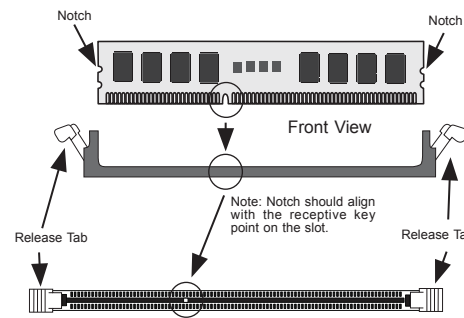
## Board Layout



## Jumpers and Connectors

Jumper	Description	Default Setting
JBT1	Clear CMOS	Open (Normal)
JPG1	VGA Enable/Disable	Pins 1-2 (Enabled)
JPME2	Manufacturer (ME) Mode Select	Pins 1-2 (Normal)
JVRM1	VRM SMB Clock (to BMC or PCH)	Pins 1-2 (BMC, Normal)
JVRM2	VRM SMB Data (to BMC or PCH)	Pins 1-2 (BMC, Normal)
JWD1	Watch-Dog Timer	Pins 1-2 (Reset)
Connector		
Battery (BT1)	Onboard COMS battery	
COM 1	Front Panel COM Port 1	
FAN 1-6	System cooling fan headers	
FANA/FANB	Thermal fan headers for I/O add-on cards	
JF1	Front_Panel_Control Header	
J25	USB 2.0 Header for USB Ports 2/3	
J26	USB 3.0 Type A port for USB4	
JPWR1/2	8-pin Power Connector	
JPWR3	24-pin Power Connector	
JPI2C1	Power Supply I²C Connector	
JSD1/JSD2	Power connector for SATA DOM	
JSTBY1	Wake On LAN Header	
IPMI_LAN	Dedicated IPMI LAN port	
JIPMB1	4-pin external BMC I²C header (for an IPMI card)	
JNVI²C1	NVMe I²C headers	
JRK1	RAID key for CPU NVMe SSD	
JSDCARD1	Micro SD Card slot	
JTPM1	Trusted Platform Module (TPM)/Port 80 connector	
M.2	M.2 Slot	
(-)-SATA0-3, 4-7	I-SATA 3.0 connectors supported by the Intel PCH	
(S-)SATA0/1	S-SATA 3.0 connectors supported by the Intel PCH	
SP1	Internal Speaker	
USB0/1	Back panel USB 3.0 ports	
VGA	VGA port	
LED		
LED	Description	Status
LE1	UID (Unit Identifier) LED	Solid Blue: Unit Identified
LE6	Onboard Power LED	Solid Red: Standby Solid Green: Power On
LEDM1	BMC Heartbeat LED	Blinking Green: BMC Normal

## Memory



### Processors and their Corresponding Memory Modules

CPU#	Corresponding DIMM Modules			
CPU 1	P1-DIMMA1	P1-DIMMB1	P1-DIMMD1	P1-DIMME1
CPU 2	P2-DIMMA1	P2-DIMMB1	P2-DIMMD1	P2-DIMME1

### Memory Population for Optimal Performance For a Motherboard with Two CPUs (CPU1 & CPU2)

CPU	Corresponding DIMM Modules			
<b>4 DIMMS</b>				
CPU1	P1-DIMMA1	P1-DIMMB1	P1-DIMMD1	P1-DIMME1
CPU2				
<b>8 DIMMS</b>				
CPU1	P1-DIMMA1	P1-DIMMB1	P1-DIMMD1	P1-DIMME1
CPU2	P2-DIMMA1	P2-DIMMB1	P2-DIMMD1	P2-DIMME1

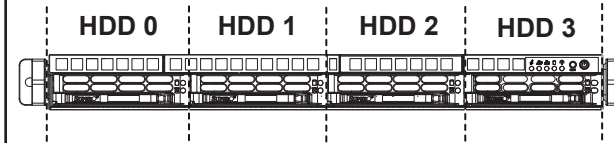
### Populating RDIMM/LRDIMM DDR4 Memory Modules

DIMM Type	Ranks Per DIMM and DATA Width	DIMM Capacity (GB)		Speed (MT/s); Voltage (V); Slots per Channel (SPC) and DIMMs per Channel (DPC)
		DRAM Density		
RDIMM	SRx4	8GB	16GB	1 Slot per Channel (1DPC)  1.2V
	SRx8	4GB	8GB	
	DRx8	8GB	16GB	
	DRx4	16GB	32GB	
RDIMM 3DS	QRx4	N/A	2H-64GB	2666
LRDIMM	QRx4	32GB	64GB	
LRDIMM 3DS	QRx4	N/A	2H-64GB	
	8Rx4	N/A	4H-128GB	

## Beep Codes

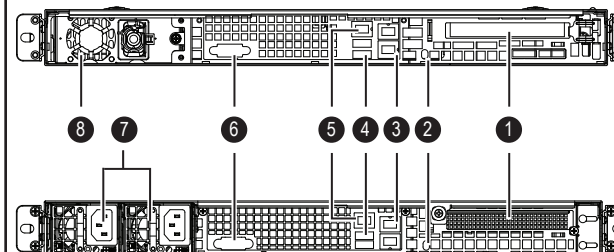
Beep Code	Error Message	Description
1 short	Refresh	Circuits have been reset (Ready to power up)
5 short, 1 long	Memory error	No memory detected in the system
5 long, 2 short	Display memory read/write error	Video adapter missing or with faulty memory
1 long continuous	System OH	System overheat condition

## Front View & Interface



No.	Description
1	Information LED
2	NIC2 LED
3	NIC1 LED
4	HDD LED
5	Power LED
6	Reset Button
7	Power Button

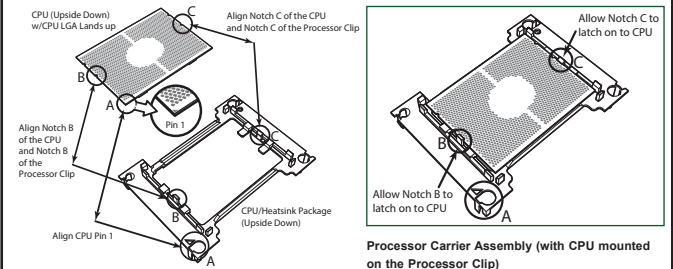
## Rear View



No.	Description
1	1 PCI-E 3.0 x8 FH Expansion Slot
2	UID Button
3	2 RJ45 GbE LAN Ports
4	2 USB Ports
5	1 Dedicated IPMI LAN Port
6	VGA Port
7	Redundant 600W Platinum Level Power Supplies
8	600W Platinum Level Power Supply

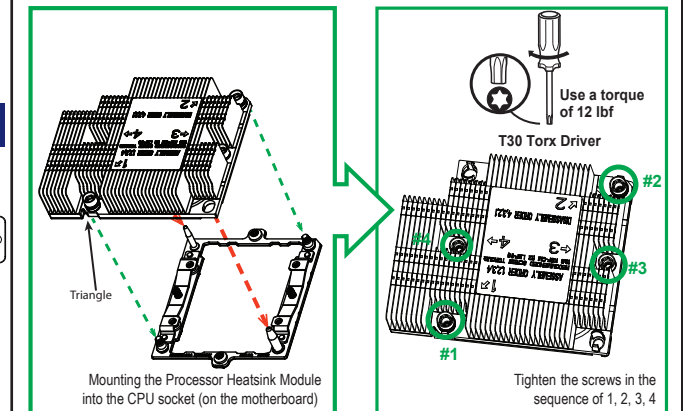
## CPU Installation

1. Locate pin 1 (A), which is the triangle on the top of the narrow processor clip. Also locate notch B and notch C (and D for -F models) on the processor clip.
2. Locate pin 1 (A), which is the triangle on the underside of the CPU. Also, locate notch B and notch C (and notch D for -F models) on the CPU as shown below.
3. Align pin 1 of the CPU with pin 1 of the narrow processor clip. Once they are aligned, carefully insert the CPU into the processor clip by sliding notch B of the CPU into notch B of the processor clip, and sliding notch C of the CPU into notch C of the processor clip (and D for -F models).
4. Examine all corners of the CPU to ensure that it is properly seated and secure on the processor clip.



## Heatsink Installation

1. Locate the triangle (pin 1) on the CPU socket, and locate the triangle (pin 1) at the corner of the PHM that is closest to "1." (If you have difficulty locating pin 1, turn the PHM upside down. With the underside of the CPU facing up, you can see the hollow triangle located next to a screw at the corner. Turn the PHM right side up, and you will see a triangle marked on the processor clip at the same corner as hollow triangle.)
2. Align pin 1 (the triangle) on the the PHM over pin 1 (the triangle) on the CPU socket.
3. Align the two holes at diagonal corners of the PHM onto the two guide posts on the socket bracket and carefully drop the PHM onto the socket.
4. Use a T30 Torx-bit screwdriver to install four screws into the mounting holes on the socket to securely attach the PHM onto the motherboard in the sequence of 1, 2, 3, and 4, as marked on the heatsink label. Gradually tighten each to assure even pressure.



## Caution

**SAFETY INFORMATION**  
**IMPORTANT:** See installation instructions and safety warning before connecting system to power supply.  
[http://www.supermicro.com/about/policies/safety\\_information.cfm](http://www.supermicro.com/about/policies/safety_information.cfm)

**WARNING:**  
 To reduce risk of electric shock/damage to equipment, disconnect power from server by disconnecting all power cords from electrical outlets.  
 If any CPU socket empty, install protective plastic CPU cap

**CAUTION:**  
 Always be sure all power supplies for this system have the same power output. If mixed power supplies are installed, the system will not operate.

For more information go to :  
<http://www.supermicro.com/support>

